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(54) NON-DIRECTIONAL LOAD DETECTING SENSOR

sensor 4.

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(57) Abstract:

PROBLEM TO BE SOLVED: To provide a non-directional load detecting sensor that (1) can accurately measure a contact load without receiving an influence of direction change even when direction of a measured force changes, (2) is easily mounted and can perform the measurement just after the mounting, (3) is resistant against instantaneous impact load, (4) easily models an object in contacting with the object, and (5) does not cause sensitivity degradation of the sensor.

SOLUTION: This load detecting sensor comprises a hollow elastic body 2 having gas sealed inside, a pressure sensor 4 for detecting a pressure of the gas inside the hollow elastic body, and an adaptor 6 for connecting the hollow elastic body to an external movable member. The hollow elastic body 2 has a hollow sphere part 2a having substantially constant thickness, is deformed by the contact load from the outside to increase inner pressure, and detects it with a pressure

